

WHAT IS CLAIMED IS:

1. A packet switched local area network for
2 performing a call transfer service, comprising:
3 a transferring end-point involved in a held call
4 with a first subscriber and an active call with a second
5 subscriber, said transferring end-point having an active
6 port associated with said active call, a held port
7 associated with said held call and at least one
8 additional port; and
9 a controlling node connected to said transferring
10 end-point, said controlling node being adapted to order
11 said transferring end-point to relay media packets
12 received at said active port to said first subscriber and
13 relay media packets received at said held port to said
14 second subscriber upon initiation of said call transfer
15 service to connect said first subscriber and said second
16 subscriber but not said transferring end-point in a
17 transferred call, said transferring end-point being
18 capable of making and receiving additional calls on said
19 at least one additional port after said call transfer
20 service has been performed.

1 2. The packet switched local area network of Claim
2 1, wherein said transferring end-point comprises a mobile
3 station in wireless communication with an A-bis gateway
4 within said packet switched local area network, said A-
5 bis gateway having said active port, said held port and
6 said at least one additional port associated therewith.

1 3. The packet switched local area network of Claim
2 2, wherein said controlling node is an access node
3 connected to said A-bis gateway, said access node being
4 further adapted to order said A-bis gateway to disconnect
5 said active call and said held call upon initiation of
6 said call transfer service.

1 4. The packet switched local area network of Claim
2 3, wherein said A-bis gateway is adapted to convert
3 between said media packets containing data that are
4 transmitted over said packet switched local area network
5 and circuit-switched information containing said data
6 that are transmitted between said mobile station and said
7 A-bis gateway.

1 5. The packet switched local area network of Claim
2 3, further comprising:

3 a base transceiver station connected to said A-bis
4 gateway and in wireless communication with said mobile
5 station, said access node being further adapted to order
6 said base transceiver station to release radio resources
7 assigned to said active call and said held call upon
8 initiation of said call transfer service.

1 6. The packet switched local area network of Claim
2 3, wherein said A-bis gateway has a media port associated
3 with said mobile station associated therewith, said media
4 port being linked to said active port, said access node
5 being further adapted to order said A-bis gateway to
6 disconnect the link between said media port and said
7 active port.

1 7. The packet switched local area network of Claim
2 3, wherein said A-bis gateway is an anchor A-bis gateway,
3 and wherein said transferring end-point further comprises
4 a non-anchor A-bis gateway, said mobile station being
5 handed over from said anchor A-bis gateway to said non-
6 anchor A-bis gateway prior to initiating said call
7 transfer service, said non-anchor A-bis gateway having a
8 media port associated with said mobile station and a non-
9 anchor port associated therewith, said non-anchor port
10 being connected to said active port, said access node
11 being further adapted to order said non-anchor A-bis
12 gateway to release said non-anchor port to disconnect
13 said active port from said non-anchor port.

1 8. The packet switched local area network of Claim
2 3, wherein said mobile station hands over into an
3 additional network outside of said packet switched local
4 area network prior to initiating said call transfer
5 service, and wherein said transferring end-point further
6 comprises a gateway connected to said A-bis gateway and
7 said mobile station, said gateway being adapted to
8 convert between said packet switched local area network
9 and said additional network, said gateway having a
10 gateway port associated with said mobile station
11 associated therewith, said gateway port being connected
12 to said active port, said access node being further
13 adapted to order said gateway to release said gateway
14 port to disconnect said active port from said gateway
15 port.

1 9. The packet switched local area network of Claim
2 3, wherein said access node is further adapted to order
3 said A-bis gateway to release said active port and said
4 held port in response to disconnection of said
5 transferred call by said first subscriber or said second
6 subscriber.

1 10. The packet switched local area network of Claim
2 3, further comprising:

3 a Gatekeeper connected to said access node, said
4 Gatekeeper being adapted to send and receive signaling
5 messages between said first subscriber and said second
6 subscriber via said access node and said A-bis gateway
7 after said call transfer service has been performed.

1 11. The packet switched local area network of Claim
2 1, wherein said controlling node is said transferring
3 end-point, said transferring end-point being further
4 adapted to send and receive signaling messages between
5 said first and second subscriber after said call transfer
6 service has been performed.

1 12. The packet switched local area network of Claim
2 1, wherein said first subscriber and said second
3 subscriber are additional end-points within said packet
4 switched local area network.

1 13. The packet switched local area network of Claim
2 1, wherein at least one of said first subscriber and said
3 second subscriber are within an additional network
4 outside of said packet switched local area network.

1 14. The packet switched local area network of Claim
2 13, further comprising:

3 a gateway connected to said transferring end-point,
4 said gateway being adapted to convert between said packet
5 switched local area network and said additional network,
6 said media packets that are transmitted to and from said
7 at least one of said first subscriber and said second
8 subscriber that are within said additional network being
9 routed through said gateway.

1 15. A method for performing a call transfer service
2 within a packet switched local area network, comprising
3 the steps of:

4 initiating said call transfer service by a
5 transferring end-point involved in a held call with a
6 first subscriber and an active call with a second
7 subscriber, said transferring end-point having an active
8 port associated with said active call, a held port
9 associated with said held call and at least one
10 additional port; and

11 ordering, by a controlling node connected to said
12 transferring end-point, said transferring end-point to
13 relay media packets received at said active port to said
14 first subscriber and relay media packets received at said
15 held port to said second subscriber to connect said first
16 subscriber and said second subscriber but not said
17 transferring end-point in a transferred call, said
18 transferring end-point being capable of making and
19 receiving additional calls on said at least one
20 additional port after said call transfer service has been
21 performed.

1 16. The method of Claim 15, wherein said
2 transferring end-point comprises a mobile station in
3 wireless communication with an A-bis gateway within said
4 packet switched local area network, said A-bis gateway
5 having said active port, said held port and said at least
6 one additional port associated therewith.

1 17. The method of Claim 16, wherein said
2 controlling node is an access node connected to said A-
3 bis gateway, and further comprising the step of:
4 ordering, by said access node, said A-bis gateway to
5 disconnect said active call and said held call.

1 18. The method of Claim 17, further comprising the
2 step of:
3 ordering, by said access node, a base transceiver
4 station connected to said A-bis gateway and in wireless
5 communication with said mobile station to release radio
6 resources assigned to said active call and said held
7 call.

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2 19. The method of Claim 17, wherein said A-bis
3 gateway has a media port associated with said mobile
4 station associated therewith, said media port being
5 linked to said active port, and further comprising the
6 step of:

7 ordering, by said access node, said A-bis gateway to
8 disconnect the link between said media port and said
9 active port.

1 20. The method of Claim 17, wherein said A-bis
2 gateway is an anchor A-bis gateway, said transferring
3 end-point further comprising a non-anchor A-bis gateway,
4 and further comprising the steps of:

5 performing a hand over, by said mobile station, from
6 said anchor A-bis gateway to said non-anchor A-bis
7 gateway prior to said step of initiating, said non-anchor
8 A-bis gateway having a media port associated with said
9 mobile station and a non-anchor port associated
10 therewith, said non-anchor port being connected to said
11 active port; and

12 ordering, by said access node, said non-anchor A-bis
13 gateway to release said non-anchor port to disconnect
14 said active port from said non-anchor port.

1 21. The method of Claim 17, wherein said
2 transferring end-point further comprises a gateway
3 connected to said A-bis gateway and said mobile station,
4 and further comprising the steps of:

5 handing over, by said transferring end-point, into
6 an additional network outside of said packet switched
7 local area network prior to said step of initiating, said
8 mobile station being connected to said packet switched
9 local area network through said gateway, said gateway for
10 converting between said packet switched local area
11 network and said additional network, said gateway having
12 a gateway port associated with said mobile station
13 associated therewith, said gateway port being connected
14 to said active port; and

15 ordering, by said access node, said gateway to
16 release said gateway port to disconnect said active port
17 from said gateway port.

1 22. The method of Claim 17, further comprising the
2 step of:

3 ordering, by said access node, said A-bis gateway to
4 release said active port and said held port in response
5 to disconnection of said transferred call by said first
6 subscriber or said second subscriber.

1 23. The method of Claim 17, further comprising the
2 step of:

3 transmitting, by a Gatekeeper connected to said
4 access node, signaling messages between said first
5 subscriber and said second subscriber via said access
6 node and said A-bis gateway after said call transfer
7 service has been performed.

1 24. The method of Claim 15, wherein said
2 controlling node is said transferring end-point, and
3 further comprising the step of:

4 transmitting, by said transferring end-point,
5 signaling messages between said first and second
6 subscriber after said call transfer service has been
7 performed.

1 25. The method of Claim 15, wherein said first
2 subscriber and said second subscriber are end-points
3 within said packet switched local area network.

1 26. The method of Claim 15, wherein at least one of
2 said first subscriber and said second subscriber are
3 within an additional network outside of said packet
4 switched local area network.

1 27. The method of Claim 26, further comprising the
2 step of:

3 routing said media packets that are transmitted to
4 and from said at least one of said first subscriber and
5 said second subscriber that are within said additional
6 network through a gateway connected to said controlling
7 node, said gateway for converting between said packet
8 switched local area network and said additional network.